

WHAT IS CLAIMED IS:

1. A method of controlling the operation of at least one motion device by directly implementing electronic simulation information, wherein the at least one motion device comprises at least one controllable element, said method comprising:

- 5        extracting process information from the electronic simulation information;
- formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information;
- 10      interpreting the neutral process information into operation information for each of the at least one controllable element, wherein the operation information depends on a type of the at least one motion device; and
- distributing the operation information to the at least one controllable element of the at least one motion device to thereby control the operation of the at least one motion device.

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2. A method according to Claim 1, wherein the at least one motion device comprises a plurality of motion devices, wherein interpreting comprises interpreting the neutral process information into operation information specific to the type of each of the plurality of motion devices, and wherein distributing comprises distributing the operation information to the at least one controllable element of respective motion devices of the plurality of motion devices.

3. A method according to Claim 1, wherein the electronic simulation information comprises electronic simulation information in at least one format, and

25        wherein formatting comprises formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

30        4. A method according to Claim 1, wherein the at least one motion device operates according to operation information in at least one format, and wherein interpreting comprises interpreting the neutral process information into operation information in the at least one format of the at least one motion device.

5. A method according to Claim 1, wherein the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein formatting comprises formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein interpreting comprises interpreting the neutral process information into operation information in the at least one format of the at least one motion device.

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6. A method according to Claim 5, wherein formatting comprises formatting the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

7. A method according to Claim 1, wherein the at least one motion device comprises at least one machine tool, and wherein distributing comprises distributing the operation information to the at least one machine tool to thereby control the operation of the at least one machine tool.

20 8. A system for controlling the operation of at least one motion device comprising at least one controllable element, said system comprising:

25 a setup component capable of extracting process information from electronic simulation information, wherein the electronic simulation information includes information relating to the operation of the at least one motion device, wherein said setup component is further capable of formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information; and

30 at least one motion command component capable of receiving the neutral process information from said setup component, wherein each motion command component is associated with at least one motion device, wherein each motion command component is capable of interpreting the received neutral process information into operation information for the at least one controllable element of

each respective motion device, wherein the operation information depends on a type of the at least one motion device, and wherein each motion command component is further capable of distributing the operation information to the at least one controllable element of each respective motion device to thereby control the operation

5 of the respective motion devices.

9. A system according to Claim 8, wherein the at least one motion device comprises a plurality of motion devices, said setup component is capable of interpreting the neutral process information into operation information specific to the

10 type of each of the plurality of motion devices, and wherein each motion command component is capable of distributing the operation information to the at least one controllable element of each respective motion device of the plurality of motion devices.

15 10. A system according to Claim 8, wherein the electronic simulation information comprises electronic simulation information in at least one format, and wherein said setup component is capable of formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

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11. A system according to Claim 8, wherein the at least one motion device operates according to operation information in at least one format, and wherein each motion command component is capable of interpreting the neutral process information into operation information in the format of each respective motion device.

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12. A system according to Claim 8, wherein the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein said setup component is capable of formatting the process information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein each motion command component is

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capable of interpreting the neutral process information into operation information in the format of each respective motion device.

13. A system according to Claim 12, wherein said setup component is  
5 capable of formatting the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

10 14. A system according to Claim 8, wherein the at least one motion device comprises at least one machine tool, and wherein each motion command component is capable of distributing the operation information to each respective machine tool to thereby control the operation of the respective machine tools.

15 15. A computer program product for controlling the operation of at least one motion device by directly implementing electronic simulation information, wherein the at least one motion device comprises at least one controllable element, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in said medium, the computer-readable program code comprising:  
20 a first executable portion for extracting process information from the electronic simulation information;  
a second executable portion for formatting the process information into neutral process information, wherein the neutral process information is in a format independent of a format of the electronic simulation information;  
25 a third executable portion for interpreting the neutral process information into operation information for each of the at least one controllable element, wherein the operation information depends on a type of the at least one motion device; and  
a fourth executable portion for distributing the operation information to the at least one controllable element of the at least one motion device to thereby control the operation of the at least one motion device.

16. A computer program product according to Claim 15, wherein the at least one motion device comprises a plurality of motion devices, wherein said third

5 executable portion interprets the neutral process information into operation information specific to the type of each of the plurality of motion devices, and wherein said fourth executable portion distributes the operation information to the at least one controllable element of respective motion devices of the plurality of motion devices.

17. A computer program product according to Claim 15, wherein the electronic simulation information comprises electronic simulation information in at least one format, and wherein said second executable portion formats the process 10 information extracted from the electronic simulation information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information.

18. A computer program product according to Claim 15, wherein the at 15 least one motion device operates according to operation information in at least one format, and wherein said third executable portion interprets the neutral process information into operation information in the at least one format of the at least one motion device.

20 19. A computer program product according to Claim 15, wherein the electronic simulation information comprises electronic simulation information in at least one format, wherein the at least one motion device operates according to operation information in at least one format, wherein said second executable portion formats the process information extracted from the electronic simulation information 25 into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and wherein said third executable portion interprets the neutral process information into operation information in the at least one format of the at least one motion device.

30 20. A computer program product according to Claim 19, wherein said second executable portion formats the process information into the neutral process information in a neutral format independent of the at least one format of the electronic simulation information, and further independent of the at least one format of the operation information of the at least one motion device.

21. A computer program product according to Claim 15, wherein the at  
least one motion device comprises at least one machine tool, and wherein said fourth  
executable portion distributes the operation information to the at least one machine  
5 tool to thereby control the operation of the at least one machine tool.

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